

## Meet The Varroa Mite...



The Varroa Mite, *Varroa destructor*, is an external parasite that attacks both adult and immature stages (brood) of honey bees. These mites not only weaken bees, but also transmit viruses during the feeding process. Evidence of mite damage is indicated by open/damaged pupal cells, holes in pupal cappings, and emerging adult bees with deformed/missing wings/legs. Untreated and unmonitored infestations of Varroa mites can result in absconding and colony death. Given this, colonies should be routinely checked throughout the bee season so informed decisions can be made about treatment methods and efficacy. To obtain the best results, incorporate Integrated Pest Management (IPM) methods.



## Additional Resources

Want to learn even more about  
Varroa Mite Integrated Pest  
Management (IPM) methods?

*If so, visit the Honey Bee Health  
Coalition Tools for Varroa*

*Management:*

[http://honeybeehealthcoalition.org/  
varroa/](http://honeybeehealthcoalition.org/varroa/)

**Are you interested in getting  
your colony(ies) health  
evaluated by the MDAR Apiary  
Team?**

*If so, sign up for a free annual  
inspection at the MDAR website:*

[http://www.mass.gov/eag/agencies/  
agr/farm-products/apiary/mdar-  
apiary-inspection-request-form.html](http://www.mass.gov/eag/agencies/<br/>agr/farm-products/apiary/mdar-<br/>apiary-inspection-request-form.html)



## Contact Us:

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Division of Crop and Pest Services

## Varroa Mites



# Integrated Pest Management for Varroa Mites

NAME	ACTIVE INGREDIENT	MODE OF ACTION	APPLICATION TIME	TREATMENT PERIOD	HONEY SUPER ON?	NOTES
Apivar	amitraz [amidine]	contact	Spring, Fall	42-56 days	No	do not use more than 2 times per year
Apistan	tau-fluvalinate [pyrethroid]	contact	Spring, Fall [>50°F]	42-56 days	No	do not use during nectar flow, mite resistance
CheckMite+	coumaphos [organophosphate]	contact	Spring, Summer, Fall	42-45 days	No	do not use more than 2 times per year, mite resistance
*Apiguard	thymol	fumigant	Spring, Fall [60°F to 105°F]	28-42 days	No	do not feed during treatment; REI 48hrs
*Api Life Var	thymol, menthol, eucalyptol oil, camphor	fumigant	Spring, Summer, Fall, Winter [64°F to 95°F]	26-32 days	No	do not apply during robbing events
*Mite-Away Quick Strips (MAQS)	formic acid	fumigant	Spring, Summer, Fall [50°F to 85°F]	7-21 days	Yes	do not feed during treatment, can kill mites under wax cappings
*Oxalic Acid	oxalic acid dihydrate	contact, fumigant	Spring, Fall	varies	No	only use during brood-less periods
*HopGuard II	potassium salt of hops beta acids	contact	Spring, Summer, Fall	30 days	Yes	use during brood-less periods
*Screen Bottom Board	n/a	cultural	all year	all year	Yes	check mite drop for effectiveness
*Sanitation	n/a	cultural	all year	varies	Yes	remove/replace comb as needed
*Drone Trapping	n/a	cultural	Spring, Summer, Fall	14-20 days	Yes	remove comb before emergence
*Brood Interruption	n/a	cultural	Spring, Summer, Fall	14-28 days	Yes	divide/split hive or cage queen
*Re-queen	n/a	cultural	Spring, Summer, Fall	28 days	Yes	select mite resistant stock when available
*Powdered Sugar	10X confectioners' sugar	contact	Spring, Summer, Fall [bi-monthly]	varies	Yes	dust over/between frames

\*Indicates Organic Treatments

## Alcohol Mite Wash

Materials Required: white dishpan, pint size jar, 1/2 cup, 1/8 inch hardware cloth/mesh/strainer, 70% alcohol

1. Inspect your honey bee colony and remove a single frame that contains open brood. Make sure the queen is not on the frame.
2. Shake worker bees from this frame into a white dishpan.
3. Quickly scoop ½ cup of worker bees (~ 300 bees) from the dishpan and put into a pint sized jar filled half-way with 70% alcohol.
4. Shake leftover live bees from the dishpan back into the hive.
5. Put the lid on the jar.
6. Shake jar vigorously for 1-2 minutes to dislodge mites from submerged bees.
7. Place jar upright and let it sit for 10-15 minutes to allow mites to drop to bottom of container.
8. Pour the mixture of dead bees, mites and alcohol onto a 1/8 inch hardware cloth/ mesh/strainer over the empty dishpan to remove the mites and alcohol.
9. Sift through the liquid debris to count the total mites. If the total number of mites ranges from 3-9, consider treatment options.
10. Discard alcohol and bees, then wash all re-usable materials.